

(2) A space of less than 14 cubic meters (500 cubic feet) in volume must have a gooseneck vent of not less than 40 millimeters (1.5 inches) in diameter.

(b) Vent openings may not be located adjacent to possible sources of vapor ignition.

(c) A vessel of not more than 19.8 meters (65 feet) in length carrying not more than 12 passengers, with ventilation installations in accordance with ABYC Project H-32, "Ventilation of Boats Using Diesel Fuel," will be considered as meeting the requirements of this section.

#### **§ 182.480 Flammable vapor detection systems.**

(a) A flammable vapor detection system required by § 182.410(c) must meet UL Standard 1110, "Marine Combustible Gas Indicators," or be approved by an independent laboratory.

(b) Procedures for checking the proper operation of a flammable vapor detection system must be posted at the primary operating station. The system must be self-monitoring and include a ground fault indication alarm.

(c) A flammable vapor detection system must be operational for 30 seconds prior to engine startup and continue sensing the entire time the engine is running.

(d) A flammable vapor detection system must provide a visual and audible alarm at the operating station.

(e) A sensor must be located above the expected bilge water level in the following locations:

(1) The lowest part of a machinery space;

(2) The lowest part of a space containing a fuel tank when separate from the machinery space; and

(3) Any other location when required by the cognizant OCMI.

(f) A flammable vapor detection system must be installed so as to permit calibration in a vapor free atmosphere.

(g) Electrical connections, wiring, and components for a flammable vapor detection system must comply with part 183 of this chapter.

(h) An operation and maintenance manual for the flammable vapor detection system must be kept onboard.

### **Subpart E—Bilge and Ballast Systems**

#### **§ 182.500 General.**

(a) A vessel must be provided with a satisfactory arrangement for draining any watertight compartment, other than small buoyancy compartments, under all practicable conditions. Sluice valves are not permitted in watertight bulkheads.

(b) A vessel of not more than 19.8 meters (65 feet) in length carrying not more than 12 passengers may meet the requirements of ABYC Project H-22, "DC Electric Bilge Pumps Operating Under 50 Volts," in lieu of the requirements of this subpart, provided that each watertight compartment, other than small buoyancy compartments and the compartment forward of the collision bulkhead, is provided with a means for dewatering.

(c) Special consideration may be given to vessels, such as high speed craft, which have a high degree of subdivision and utilize numerous small buoyancy compartments. Where the probability of flooding of the space is limited to external hull damage, compartment drainage may be omitted provided it can be shown by stability calculations, submitted to the cognizant OCMI, that the safety of the vessel will not be impaired.

#### **§ 182.510 Bilge piping system.**

(a) A vessel of at least 7.9 meters (26 feet) in length must be provided with individual bilge lines and bilge suction for each watertight compartment, except that the space forward of the collision bulkhead need not be fitted with a bilge suction line when the arrangement of the vessel is such that ordinary leakage may be removed from this compartment by the use of a hand portable bilge pump or other equipment, and such equipment is provided.

(b) A bilge pipe in a vessel of not more than 19.8 meters (65 feet) in length must be not less than 25 millimeters (1 inch) nominal pipe size. A bilge pipe in a vessel of more than 19.8 meters (65 feet) in length must be not less than 40 millimeters (1.5 inches) nominal pipe size. A bilge suction must